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2
3 BEFORE THE STATE OF WASHINGTON
4 ENERGY FACILITY SITE EVALUATION COUNCIL
5

6
7 IN RE APPLICATION NO. 99.1

EXHIBIT _____ (AJU-T)

8 SUMAS ENERGY 2 GENERATION FACILITY
9

10 WASHINGTON STATE DEPARTMENT OF COMMUNITY, TRADE, AND ECONOMIC
11 DEVELOPMENT

12 PREFILED DIRECT TESTIMONY

13 WITNESS: TONY USIBELLI
14

15 **Q: Would you please introduce yourself?**
16

17 A: My name is Tony Usibelli. I am employed by the Energy Division of the Washington
18 State Office of Trade and Economic Development, 925 Plum St. S.E. in Olympia, WA.

19 **Q: What are your background and qualifications?**

20 A: I am a senior energy policy specialist in the Energy Division at CTED. In addition, I am
21 an adjunct member of the faculty at the Evergreen State College. My current resume is attached
22 (AJU-1, Résumé). I have worked as an energy researcher, energy program manager and
23 supervisor, and energy policy specialist since 1978. I have published and presented extensively
24 on energy issues including:
25
26

1 renewable energy resources, energy conservation, energy codes, greenhouse gas policy, and
2 energy resource development and impacts.

3 In my current position, I am responsible for state energy policy analysis and
4 implementation focusing on energy and greenhouse gas emissions/mitigation, renewable energy,
5 state, regional, and national electricity policy, energy and economic development, and
6 international markets for energy efficiency and renewables.
7

8 **Q: What will your testimony cover?**

9 A: My testimony will focus on:
10

- 11 1) The state energy policy mandates to encourage the development of renewable energy
12 sources and energy efficiency and conservation.
- 13 2) What assurances are necessary that there is a need for additional power generating
14 capacity in Washington State.
- 15 3) The need to mitigate greenhouse gas emissions from energy production.
16

17 **Q: Why is the Energy Division of CTED involved in the proceedings?**

18 A: The addition of a new natural gas-fired power plant of the magnitude of the Sumas 2
19 Generating Facility would have a significant impact on the electricity picture in Washington
20 State. If the plant is permitted, it will be a major consumer of natural gas; it will produce large
21 amounts of greenhouse gases; it will have impacts on the transmission system; and it may make
22 investment in cost-effective energy efficiency and environmentally desirable renewable energy
23 sources less likely.
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1 The energy division has a statutory responsibility to promote and ensure statewide
2 energy policy goals are being met. We believe that intervention in this and related proceedings
3 before EFSEC is necessary to fulfill those responsibilities.¹
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6 **Q: Why is CTED the agency responsible for implementation of state energy policy**
7 **since the statute refers to the state energy office?**

8 A: In 1996, the governor and legislature reorganized state energy functions. The energy
9 policy and facility siting responsibilities of the State Energy Office were transferred to the Dept.
10 of Community, Trade, and Economic Development (CTED). Because of that reorganization,
11 the energy policy group in CTED assumed the statutory responsibilities of the former
12 Washington State Energy Office (WSEO).
13
14

15 **Q: Would you please describe CTED statutory responsibilities that relate to this**
16 **proceeding?**

17 A: The statutory state energy policy responsibilities of the State Energy Office (CTED's
18 Energy Division) are set out in RCW 43.21F. There are four specific provisions of that section
19 that are particularly relevant to these proceedings:
20

21 *(1) The development and use of a diverse array of energy resources with*
22 *emphasis on renewable energy resources shall be encouraged;*
23

24 ¹ For example, RCW 43.21F.045(2) provides that CTED is responsible for, inter alia... "(f) Cooperate
25 with state agencies, other governmental units, and private interests in the prioritization and implementation of
26 the state energy strategy elements and on other energy matters. (g) Serve as the official state agency responsible
for coordinating implementation of the state energy strategy."

1 (2) *The supply of energy shall be sufficient to insure the health and*
2 *economic welfare of its citizens;*

3 (3) *The development and use of energy resources shall be consistent with*
4 *the statutory environmental policies of the state;*

5 (4) *Energy conservation and elimination of wasteful and uneconomic*
6 *uses of energy and materials shall be encouraged, and this conservation*
7 *should include, but is not limited to, resource recovery and materials*
8 *recycling.*

9 **Q. Are there other relevant statutory requirements?**

10 A: Yes as part of RCW 43.21F, the legislature also found that:

11 *It is the continuing purpose of state government, consistent with*
12 *other essential considerations of state policy, to foster wise and*
13 *efficient energy use and to promote energy self-sufficiency*
14 *through the use of indigenous and renewable energy sources,*
15 *consistent with the promotion of reliable energy sources, the*
16 *general welfare, and the protection of environmental quality.*

17 And the legislature established the State Energy Strategy (SES) as " primary guidance
18 for implementation of the state's energy policy." The Energy Division is required to report to
19 the state legislature every two years on issues of state energy policy and progress toward
20 achieving the recommendations set forth in the State Energy Strategy.

21 **Q: Why are these provisions relevant to these proceeding?**

22 A: They clearly establish as state policy that the Energy Division should encourage the
23 development of both renewable energy and energy efficiency resources and that this should be
24 within a context of state environmental policy, health, and welfare. Large, new electricity
25 generation facilities are certainly an important component of Washington's energy resources.

1 Nearly all new large electric generating facilities in Washington are likely to be new
2 natural gas fired units. EFSEC's four current unbuilt SCAs (Cowlitz Cogeneration, Northwest
3 Regional Power Facility, Chehalis Generation Facility, and Satsop Power Plant Site) are all
4 natural gas fired. In addition, the U.S. Energy Information Administration in its *Annual Energy*
5 *Outlook 2000* (DOE/EIA-0383 (2000), Exhibit ____ (AJU - 2) estimates that 90% of the new
6 electricity generating capacity nationwide, added between 1998 and 2020 will be natural gas or
7 natural gas and oil fired.
8

9 **Q: Why should EFSEC be concerned about this? Aren't natural gas fired combined**
10 **cycle combustion turbines environmentally and economically desirable?**
11

12 Natural gas-fired combined cycle combustion turbines (CCCT) can certainly have some
13 desirable aspects. They are, in many instances, the lowest cost new generating technology.
14 However, natural gas CCCTs are a fossil fuel resource that is highly dependent on the price
15 volatility of natural gas markets (typically a single source of fuel delivery), that produce
16 substantial amounts of emissions including greenhouses gases, consume large amounts of water,
17 and have other significant environmental impacts. They clearly should be a **part** of the mix of
18 generating resources developed over the next 20 years. This mix of resources should also
19 include a substantial component of cost-effective energy conservation and environmentally
20 desirable renewable generation.
21

22 **Q: What is the State Energy Strategy (SES)?**
23

24 A: The SES is a document that was developed with the involvement of a wide range of
25 energy industry and citizen participants. Exhibit ____ (AJU -3) "Washington's Energy Strategy:
26 An Invitation to Action). RCW 43.21F mandates SES as primary guidance for implementation

1 of state energy policy. In addition, the SES is recognized as "the policy framework for energy
2 decisions made by state agencies" in Executive Order 94-01 Exhibit ____ (AJU - 4)

3 **Q: Why is the SES important to these proceedings?**

4 **A:** The SES states:

- 5
- 6 ♦ *WSEO [CTED Energy Division] should play a leadership role in state*
7 *government to support the development of new energy resources that are*
8 *consistent with the strategy. (page 42)*
- 9 ♦ *[T]he committee views exclusive reliance on this fuel [natural gas] for*
10 *new generation and both risky and avoidable if modest new*
11 *commitments are made to renewable energy resources." (p25-26)*
- 12 ♦ *Siting processes for energy facilities need to address five points: 1) the*
13 ***need for the facility**; 2) safety and health impacts; 3) environmental*
14 *impacts; 4) economic impacts, and 5) **alternatives to the proposed***
15 ***approach.**" (page 39)*
- 16 ♦ *The Committee summarizes the role of the Energy Office in the state*
17 *energy strategy as follows: Play a leadership role in state government to*
18 *support the development of new energy resources that are consistent*
19 *with the strategy." (Page 42, Emphasis added).*

20 These policy recommendations clearly indicate that a need requirement is consistent with state
21 energy policy. Moreover, the strategy recognizes the concern that nearly exclusive reliance on
22 new natural gas generating capacity, without placing explicit mechanisms to encourage energy
23 efficiency and renewable resources creates a risky approach to managing energy within
24 Washington. As I indicated previously, this report was completed after lengthy negotiation and
25 discussion. We think EFSEC should consider these concerns in the siting of the Sumas 2
26 Generating Facility.

1 **Q: Are there other statutes and/or policies that support conservation and renewables?**

2 A: Yes, in 1981 the voters approved the Energy Financing Voter Approval Act, Initiative
3 394 (1981) Exhibit __ (AJU 5). That act relates to public financing of electricity generating
4 facilities 250 megawatts or larger. The legislation established a hierarchy for publicly financed
5 electricity-generating projects - conservation first, renewable resources second, resources
6 utilizing waste heat or high fuel conversion efficiency third, and then all other resources fourth.
7 The initiative recognized the need to support the development of energy conservation and
8 renewable energy resources, before expending public funds on new fossil fuel generation.
9

10 The Washington State Utilities and Transportation Commission (UTC) also requires all
11 regulated electric utilities to produce Least-Cost Plans (LCP) for the addition of any electric
12 generating new resources. Exhibit__(AJU – 6, WAC 480-100-251). LCP also requires
13 evaluation of both supply and demand resources on an equal footing. In many instances, this
14 means that energy efficiency resources are the most cost effective and environmentally desirable
15 alternative to meet new load growth needs.
16

17 **Q: Do any of these statutes specifically mention need and consistency?**

18 A: No, the statutes do not explicitly require need and consistency. However, the only way
19 to achieve the policies that are articulated in the documents and discussion I mentioned above is
20 through individual site certifications that require applications to demonstrate need and insure
21 consistency, either directly or through their purchasers. A need and consistency requirement in
22 the SCA will help ensure that at least some of the output from the facility will be available to
23 meet Washington State electricity needs and will help promote the development of energy
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1 efficiency and renewable energy resources. Therefore, both need and consistency are directly
2 supportive of state energy policy goals.

3
4 **Q: What are Integrated Resource Planning and Least Cost Planning?**

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6 A: First, note that the terms integrated resource planning (IRP) and least-cost planning
7 (LCP) are largely interchangeable.

8 IRP/LCP is a tool that has been used extensively in the Pacific Northwest by the
9 Northwest Power Planning Council and the region's utilities to bring in a wider range of
10 considerations in the development of new electricity generating resources. These considerations
11 include environmental externalities and the environmental and economic risks associated with
12 power plant development Exhibit ____ (AJU- 7, 1991 Northwest Power Plan).

13
14 The intent of Integrated Resource Planning is to threefold: first to encourage a careful
15 and deliberative examination of both electricity **supply and electricity demand** options on an
16 equal basis; second; to include **public input** in such a deliberative process, and third, to develop
17 a **ranking** of new electricity supply resources, based on this process.

18
19 Because of the planning discipline and implementation of IRP, Washington State and the
20 Pacific Northwest have achieved substantial benefits. The Northwest Power Planning Council
21 (NWPPC) in its 1996 Conservation and Electric Power Plan Exhibit ____ (AJU - 8) notes that:

22
23 *Since the creation of the Council [in 1980], utilities, businesses,*
24 *local governments, and other in the region have saved more than*
25 *1,200 average megawatts of electricity, enough to power the City*
26 *of Seattle. These savings cost utilities an average of 2 cents to*
2.5 cents per kilowatt-hour. That's about half the cost of power
from the lowest-cost new generating resources available at the

1 *time. The environmental benefits of foregoing new generating*
2 *resources have not been calculated, but it is likely that they are*
3 *substantial. (Page 1-2)*

4 In large measure, those impressive successes were due to the development and implementation
5 of IRP.

6 The Power Council's plan also goes on to note that the Pacific Northwest has "1,535
7 average megawatts of electricity savings that could be obtained over the next 20 year at an
8 average levelized cost of 1.7 cents per kilowatt-hour." (Page 1-6) Based on regional electricity
9 loads, at least half of the savings potential should be available in Washington State.

10
11 **Q: Isn't Integrated Resource Planning/Least Cost Planning intended for electric**
12 **utilities not merchant power plants?**

13 A: Yes, IRP requirements are typically imposed at the electric utility level. However, this
14 does not mean that IRP is not relevant in the site certification process. EFSEC is charged with
15 seeking to develop power at a reasonable cost and to preserve and protect Washington's
16 environment. With the cost-effective energy efficiency potential indicated above and the
17 beneficial effects that conservation and renewable resources can have for the environment, it is
18 appropriate for EFSEC to consider IRP, energy efficiency, and renewable energy in the siting
19 process.
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22 We are not asking Sumas 2 or any of the other merchant plants in Washington to
23 develop or implement an IRP. If EFSEC were to impose a need and consistency requirement
24 substantially similar to those already in place, Sumas 2 would merely need to demonstrate that
25 purchasers who take a substantial portion of the output (40% or more) have certified that they
26

1 have an IRP or an IRP- equivalent process in place. Such a requirement would help to ensure
2 that the buyer is systematically evaluating conservation and renewable energy resources.
3

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5 **Q: Are there other Site Certification Agreements (SCAs) that are required to meet**
6 **need and consistency requirements?**

7 A: Yes, the SCAs for the Satsop Power Plant Site and the Chehalis Power Generating
8 Facility have such requirements Exhibits ____ (AJU - 9 and AJU - 10). In both SCAs, EFSEC
9 has required the project developers to demonstrate need for the facility via a 5 year contract for
10 60% of the plants output. EFSEC also requires that for any contracts for 40% or more of the
11 output, that the purchasers have an integrated resource plan or equivalent process in place.
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14 **Q: Why were these provision included?**

15 A: I think the Chehalis Power Plant Prehearing Conference report from September 18,
16 1995 aptly summarizes key reasons for including need and consistency in SCAs. Exhibit ____
17 (AJU – 11, pages 31- 34).
18

19 *In terms of need, the agreement is designed to lessen the risk that the*
20 *region would construct more energy facilities than its needs. It is also*
21 *designed to less the risk that an insufficient facility would be built by*
allowing the permitting process to go forward in advance of need.

22 *As to the consistency issue, this agreement is designed to promote the*
23 *implementation of the Northwest Power Planning Council's Power Plan*
24 *with the regional plan and to promote the implementation of other*
25 *improved integrated resource plans*
26

1 **Q: What about the Cowlitz Cogeneration and Northwest Regional Power Facility**
2 **(Creston) SCAs, why don't they include these provisions?**

3 A: The Cowlitz project is a co-generation facility (using natural gas for both electricity
4 generation and process heat) – this is more efficient, replaces old oil-fired boilers, and creates a
5 substantial decrease in adverse environmental impacts. The Cowlitz facility clearly will serve a
6 substantial amount of on-site need, and is a higher efficiency, better environmental resource
7 consistent with IRP requirements.
8

9 WSEO intervened in the Creston siting process and raised similar issues of need and
10 consistency. We did not prevail.
11

12 Overall, three of the four existing SCAs have or are consistent with a need and
13 consistency provision.
14

15 **Q: Mr. Litchfield, in his testimony, notes that there is a demonstrated need for new**
16 **electric resources in the region. Do you agree with his assessment?**

17 A: I agree that there is reasonable likelihood that the Northwest and Washington State will
18 need new generating resources. The key questions that arise are: 1) will be the mix of resources
19 developed to meet that need include some significant conservation and renewable energy and 2)
20 will those resources serve Washington state needs.
21

22
23 I believe that a need and consistency provision in the Sumas 2 SCA will help to promote those
24 objectives. Implementation of integrated resource planning has already resulting in major
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1 conservation achievements and needs provision would an additional opportunity for long-term
2 power contracts.

3
4 **Q: Wouldn't any such requirements put Sumas 2 at a competitive disadvantage?**

5
6 A: No, not necessarily. Since I do not know the specific financial and marketing plans for
7 this plant or the company and applicant has not provided that information, it is not possible to
8 evaluate the specific competitive impacts of such requirements on Sumas 2. It is possible that
9 the demonstration of a 5-year contract will be viewed more favorably by the financial markets
10 than a similarly configured plant subject to the vagaries of the competitive wholesale market.
11

12 We believe it is incumbent upon EFSEC to ensure that resource impacts and alternative
13 sources are considered by Sumas 2 now, at the planning stage. The Applicant can then evaluate
14 if it is cost effective to proceed with this plant at this location or conversely would recommend
15 adding a conservation or renewable energy requirement to the SCA.
16

17 **Q: Won't it be difficult for Sumas 2 to sign up purchasers for 5-year contracts?**

18
19 A: Given recent developments in the western energy market, such long-term contracts may
20 be more attractive. For example recent price volatility in the western U.S. power market may
21 encourage purchasers to value the stability of longer term contracts.

22 **Q: In the Sumas 2 Generating Facility application, the applicant has proposed to**
23 **fund some mitigation of greenhouse gas emissions from the plant. What do you think of**
24 **their proposal?**
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1 A: I am encouraged that the applicant has acknowledged the importance of mitigating
2 greenhouse gas emissions from their facility. As other have testified in these proceedings,
3 greenhouse gas emissions and consequent global climate change are likely to have very
4 significant impacts in the Pacific Northwest and worldwide. However, the applicants proposal
5 to fund \$100,000 per year for 10 years is a very small contribution both the amount of total
6 annual emissions and the capital investment in the facility.

8 Dr. Phil Mote, in his testimony, noted the potentially large negative impacts of climate
9 change on Washington's water and hydroelectric generating resources. In effect, climate change
10 will likely reduce the availability of Washington's renewable, low cost hydroelectric generation.

11 In his testimony, Mr. Peter West has described the State of Oregon's CO2 mitigation
12 requirement for new power plants. As Mr. West has indicated, this standard has been met by a
13 number of new natural gas facilities in Oregon.

15 Given both the potential consequences as well as the demonstrated ability of plants in
16 Oregon to meet a CO2 reduction standard, I believe the applicant should be required to meet
17 the mitigation standards at least equivalent to the level required by the State of Oregon for new
18 natural gas CCCTs.

21 **Q: Please summarize what actions are you asking EFSEC to take on the Sumas 2**
22 **Generating Facility**

23 A: First, I would recommend that EFSEC impose a need and consistency provision in the
24 SCA that is substantially similar to the need and consistency provisions included in the Satsop
25 and Chehalis SCAs. A need and consistency requirement would help ensure that the output of
26

1 the plant will be available to meet need and that major purchasers of this output would have
2 engaged in a public and deliberative process that included examination of both supply and
3 demand resources. I believe that such a need and consistency requirement would not impose an
4 undue burden on the project and would help to promote state energy policy goals.
5

6 Second, I would support the recommendation made by other intervenors that EFSEC
7 impose a CO2 mitigation requirement that is at least as stringent as the State of Oregon's
8 requirement for new natural gas-fired combined cycle combustion turbines.
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10 **Q: Does this conclude your testimony?**

11 **A: Yes**
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